

Title (en)

Apparatus and method for the sterilisation, degassing and concentration of viscous products

Title (de)

Apparat und Verfahren zum Sterilisieren, Entgasen und Aufkonzentrieren viskoser Erzeugnisse

Title (fr)

Appareil et procédé pour la stérilisation, le dégazage et la concentration de produits visqueux

Publication

EP 2774626 A2 20140910 (EN)

Application

EP 12198386 A 20121220

Priority

US 201213713760 A 20121213

Abstract (en)

The invention relates to an evaporative cooling device for a viscous fluid comprising: - a vacuum chamber (29), having an upper part (30) wherein the viscous fluid is injected, a lower part (31) extending downwardly from the upper part (30) wherein the viscous fluid is collected by gravitational force, and an outlet pipe located at bottom of lower part (31), through which the viscous fluid is extracted; and - an extraction device (17), comprising a primary pump, fed with viscous fluid from the lower part (31) through the outlet pipe, and a feeding device, located inside the lower part (31) of vacuum chamber (29), which pushes the viscous fluid from the lower part (31) towards the primary pump, through the outlet pipe. The invention also relates to apparatus and method for the sterilization, degassing or water concentration of a viscous fluid comprising the evaporative cooling device.

IPC 8 full level

A61L 2/07 (2006.01); **A23C 3/037** (2006.01); **A23L 3/015** (2006.01); **A23L 23/00** (2016.01)

CPC (source: EP US)

A23L 3/22 (2013.01 - EP US); **A23L 23/00** (2016.07 - EP US); **A61L 2/07** (2013.01 - EP US); **F28C 3/08** (2013.01 - EP US)

Citation (applicant)

US 2009148343 A1 20090611 - LOPEZ DIDIER [FR], et al

Cited by

EP4335298A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

US 2014165634 A1 20140619; BR 112015013702 A2 20170711; CA 2894630 A1 20140619; CN 104936624 A 20150923; EP 2774626 A2 20140910; EP 2774626 A3 20141224; EP 2774626 B1 20171101; KR 20150114469 A 20151012; WO 2014091315 A2 20140619; WO 2014091315 A3 20141231

DOCDB simple family (application)

US 201213713760 A 20121213; BR 112015013702 A 20131212; CA 2894630 A 20131212; CN 201380070585 A 20131212; EP 12198386 A 20121220; IB 2013003185 W 20131212; KR 20157018496 A 20131212